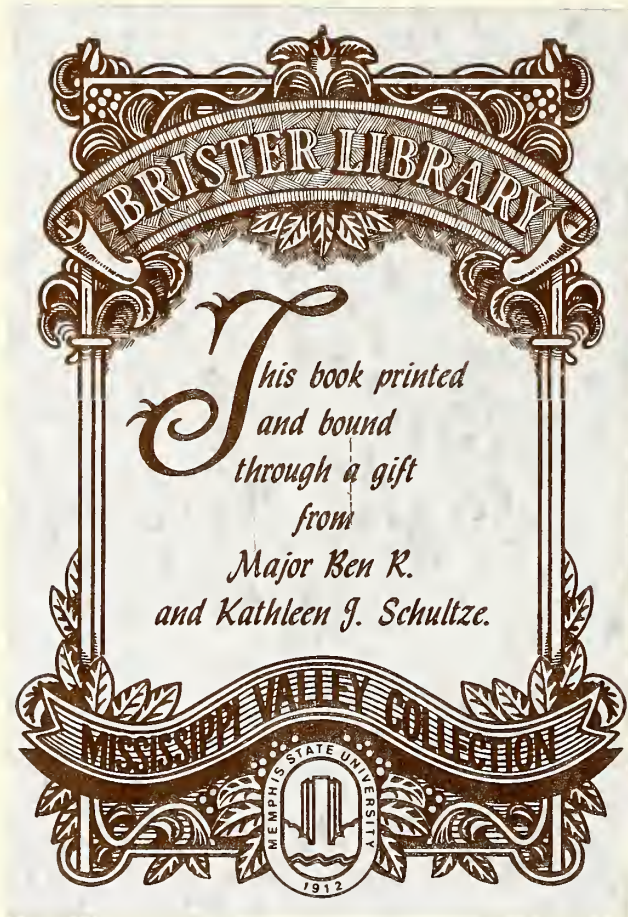


ORAL HISTORY OF THE TENNESSEE VALLEY AUTHORITY
INTERVIEW WITH
S. DAVID FREEMAN

BY - MARVIN BAILEY
TRANSCRIBER - BETTY WILLIAMS
ORAL HISTORY RESEARCH OFFICE
MEMPHIS STATE UNIVERSITY



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INTERVIEW WITH S. DAVID FREEMAN

MARCH 30, 1984

BY MARVIN BAILEY

TRANSCRIBER - BETTY WILLIAMS

ORAL HISTORY RESEARCH OFFICE

MEMPHIS STATE UNIVERSITY

TENNESSEE VALLEY AUTHORITY

KNOXVILLE, TENNESSEE 37902

OFFICE OF THE BOARD OF DIRECTORS

APR 5 1984

Mr. Marvin Bailey
1861 Poplar #2
Memphis, Tennessee 38104

Dear Marvin:

Thank you for your April 3 letter. I am pleased that Memphis State University is interested in using the interview. Although my remarks were made as part of my official duties and therefore cannot be copyrighted under the Copyright Act of 1976, I will be happy to have the University use my remarks.

Sincerely,



S. David Freeman
Director

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ORAL HISTORY
RESEARCH OFFICE

THIS IS THE ORAL HISTORY RESEARCH OFFICE OF MEMPHIS STATE UNIVERSITY. THE PROJECT IS "AN ORAL HISTORY OF TENNESSEE VALLEY AUTHORITY." THIS IS AN INTERVIEW WITH S. DAVID FREEMAN, DIRECTOR OF THE TENNESSEE VALLEY AUTHORITY. THE PLACE IS KNOXVILLE, TENNESSEE. THE DATE IS MARCH 30, 1984. THE INTERVIEW IS BY DR. MARVIN BAILEY, PROFESSOR OF ENGLISH AT MEMPHIS STATE UNIVERSITY. TRANSCRIBED BY BETTY WILLIAMS.

MR. FREEMAN: You've got some questions I assume?

DR. BAILEY: Yes, and I would have sent these to you, but. . .

MR. FREEMAN: No, I'm glad you didn't. I think the pre-rehearsed thing sounds canned.

DR. BAILEY: I didn't know whether you might want to look over them.

MR. FREEMAN: I much prefer a spontaneous thing. I consider you a friend and I'd rather just talk. I assume you are doing this for the Commercial Appeal?

DR. BAILEY: I am doing it for whomever I can. I'd like to get as wide an audience for it as I can and part of it for the Commercial. One of the things I wanted to ask you since you've turned the TVA agency around in your years here. What would you consider your biggest success?

MR. FREEMAN: Well, first of all I think that you need to recognize what I did as team spirit. The first qualification of a TVA director is to be able to count to two.

I hadn't done anything by myself. And I think it is important to understand that Dick Freeman deserved fifty percent of the credit for everything that has been done since he has been here. There were a number of years where, you know, there were just the two of us on the board. He is the other person that I am mentioning because there has been no other director that has in a sense been my partner all the way. While I have a really good feeling about what we have accomplished, at the Board level it has been the two of us. Of course, it has taken an organization to get done what we've done. So I don't have the feeling that what I did was something that I did, but I do feel that I made a difference. There were a lot of votes that--most of the things--and most of my votes included. I've got a certain sense of accomplishment that needs to be put into perspective.

You asked what is the one thing--I think it's--I guess the way I will capsulize it--is that I think that TVA has regained its reputation as a living laboratory to demonstrate that the public interest dominates over a short term special interest. I think we had somewhat drifted away from that. Also that the agency is a leader and not a follower. I think that we had become in President Carter's words in many respects "just another utility on a number of issues". No one accuses us of that anymore.

I think the recognition of the realities of the situation in the field of energy and in environment, in public participation is what I am proudest of. I guess there are three things. I think it is stop-

ping the overproduction, the overbuilding, in building up the largest conservation program, stopping the overpollution and setting an example of environmental sensitivity and opening up the agency to public input and taking the Board around and putting some citizen action on it.

All the number things we've done to regain contact with people. Not the least of which is redeploying our staff--putting them out in the field and getting them out of Knoxville. I think those are the three areas that I feel the best about. Along with that is, I think, strengthening the staff. We have a really excellent program managers. And we have refocused the agency and gotten some corporate planning and some sense of mission.

Quite frankly, I did not dream when I came down here that we could have gotten as much done as I perceived that we have gotten done. The other side of it doesn't see their own mistakes very well.

DR. BAILEY: I was going to ask you what you considered your greatest disappointment?

MR. FREEMAN: Well, I think that it is very hard for a person to spot their mistakes. That is one reason why I said at the very beginning that I thought one term as director was enough for me. You put most of your creativity in your job in a span of three or four or five years and then you start defending your mistakes. I don't know what my mistakes are. If I knew them, I would have corrected them. I'm also realistic enough



to know that we have made some mistakes.

I guess the area that I feel we have done the least and where I wish there had been a chance to do more is in the relationships with the employees and the management. I think TVA was once the real leader in employee management relations. I don't think we are a leader today.

Quite frankly I felt that we had to get the agency working on the right things. If you are building a nuclear power plant that we don't need, it doesn't make any difference how efficient you are doing it, it is all a waste. So that I felt it was more important to get us on the right track in terms of our programs. In the course of that the agency has been doing some shrinking, some changes in employee morale problems. I have made a suggestion that my colleagues are going to adopt and that is that we appoint a blue ribbon panel of some of the best people in the country in this field to come in and look over TVA and give us a whole new agenda for reform. I don't think personally that we have got the capability within our own organization to see ourselves well enough in light of all the revolutionary changes of democracy in the work place.

The ideas of the Japanese are advancing. I'd love to see TVA as a leader. If I were going to stay for any longer I would be devoting myself to that issue. I think my colleagues will and I think a blue ribbon panel would--ordinarily it is not a good idea--but in this particular case I think is what we need is a suggestion that I have made.



But I don't have feelings of regret. I am not leaving with the idea that I missed the boat, that I wish I could have redone this over or that there were big things that I didn't do. I frankly feel like I've done my job and I think the store is in somewhat better shape than I found it. I am willing to let history judge my record. I have no choice in the matter! But I feel comfortable about it. There's a time to come and I came here at a time when I was maybe an appropriate person to do what was needed to be done. Hopefully, we'll find another appropriate person to replace me. So I'll leave with kind of a good heart and good feelings.

DR. BAILEY: Is there anything that you would do differently?

MR. FREEMAN: Oh, I'm sure if I got out the calendar and looked at every day there's got to be some things that I would do differently, but they are just tactical. You know, twenty-twenty hindsight is really kind of a cheap shot! (laughter) You knew you could look at what you know about the load forecast now and suggest that we could have maybe stopped some of those nuclear plants six months or a year sooner but the plain truth of the matter is we didn't have the load forecast at that time and we didn't have the public educated. I happen to believe in this slogan partnership with the people, and if I had come down in '78 and said shut down eight nukes I think I would have been thrown off the Board.

We had to bring the public along and even at that it was the toughest decision we made. There wasn't a single public official in

the Valley I can recall that supported us at the time. We had the editorial support of some newspapers because we had hammered home the facts. The League of Women Voters helped us holding these meetings all over the Valley. I don't think we could stop the plants and have gotten away with it, in a sense, much sooner. But I think it is very clear now if we hadn't stopped them and kept pouring good money after bad that we would be going broke now--that the electric rates would still be going up and TVA would still be a source of extreme anger and that the economy of the Valley would be depressed because we were in effect taxing people to pay for power plants that we didn't need.

I am intrigued that certain people still say we should have finished them.

DR. BAILEY: In as much as you have turned the agency around--at least the point man is doing so--what is going to happen with your leaving of TVA? It's quite possible that somebody could come in with views completely opposite of yours.

MR. FREEMAN: Well, it's possible.

DR. BAILEY: Do you think it will stay on course?

MR. FREEMAN: I have to say I don't know. I really don't know for sure if I don't know who is going to be appointed. I guess I am not pessimistic about that. I feel that what we are doing reflect the facts--the facts of life in the needs. I am hopeful that an open-minded person coming on the Board will see the facts and the organization pretty well united.



And obviously, new people do things different if they are different in a fundamental way. Obviously, I think that would be a mistake. I've had my turn. The agency is now embarked in the direction that I think it will continue.

I don't want to overstate this analogy, but the way that you influence your children most, in my experience, is how you lead your own life. I would think if what we are doing commands public respect and support that that is the best insurance that new people coming in will continue along those lines. If we haven't gained a kind of respect and support, well then it will change. Certainly a new director is important. I'm not pessimistic about the future. In fact, I am optimistic.

I think primarily TVA Board people reflect the facts of life and public opinion. I think one of the things we are proudest of is that we have been successful in energy education here in this valley. I believe that there is a high degree of understanding that conservation and solar energy and renewable resources are a kind of wave of the future. Those programs need to be continued not because Dave Freeman and Dick Freeman initiated them, but because they make sense to the customers.

The same thing on the clean air thing now. I think there is a wide degree of understanding that if we had not stood up to pressures and gone ahead with the air quality clean-up program over the last five years that we would be the primary cause of the acid rain problem and the focus of the attention of the nation rather being on the



Mid-West would be on TVA. And we would be wearing a very very black hat and would be in real trouble.

I've had power distributors and others who had opposed the settlements say to me, "With the benefit of hindsight they now understand it was something we had to do." So I feel good about that. I don't think that TVA is going to go back to advocating dirty air.

DR. BAILEY: Some of the agency critics maintain that TVA is not accountable to anybody--government or the market place or really to anybody--that when it was established it was meant, I think, to be operated by experts like yourself. Now TVA has in the past become involved in pretty wasteful projects and they were doing things like polluting the air, promoting strip-mining, doubling rates. Do you think the way directors are chosen might ought to be changed? Do you think they ought to be elected? Perhaps the Board expanded?

DR. FREEMAN: No, I don't think they ought to be elected and I don't think the Board should be expanded. I think over the fifty year history that this agency has been more responsive to the public interests than any other organization that I can think of in the United States of America. I have a hard time thinking of an organization that has been more responsive to the needs of people than the Tennessee Valley Authority. That's not to mean that TVA has not made some big mistakes, but there is nothing wrong with the system. I will challenge anyone that claims that while I have been on the Board that we haven't been responsive



to public opinion to cite me chapter and verse and I am willing to discuss that in public with anybody anytime because if there is anything that I am proud of it is the fact that this agency has been opened up--wide open--and we are not going through drill. We actually listen and we have been responsive to public opinion.

Now the crucial test is not--you don't increase responsiveness by substituting a big unwieldy committee especially of part-time people. They don't know enough to know what to do regardless of what people have said. It is not just necessarily just a question of hearing what people say. This issue needs to be talked about long enough so that you can understand what it is. If a director is devoted to the public interest and will listen, such I think this present board, then the system works beautifully. But you can have all the advisor boards in the world, all the paraphernalia, but if the board members either don't listen or don't know what to do or aren't confident, TVA becomes something else.

The strength of TVA is that it is responsive to the long-term needs of the people of the Valley that the nine year term was especially designed so that you would have people who will not cave in to the pressure of the special interest of the moment, but will make the investments that people of good will will say five or ten years hence should have been done. That doesn't mean that there hasn't been some mistakes, but in the early days there was terrible pressure from land owners not to build Chickamauga, Douglas Dam--the dams. I think we can look back now and see the basic river system and we know that



that has been beneficial to the public.

Then TVA went into automatic and started damming up every last creek and river in the Valley and they went the other way and those projects became highly controversial and highly questionable. But we have now corrected that and we are no longer building any more dams and no longer channeling any streams and we have got our rivers program going. The point I am trying to make is the agency listened to the people. We've made the course corrections. We've made our mistakes, but we keep changing.

When I came on the Board, they were trying to build a barge terminal on Melton Hill Lake right across from the marina in Oak Ridge right practically in the city--one of the most beautiful areas imaginable. The Board voted 2 to 1 not to build that barge terminal. That ended the era when anybody could build anything anywhere anytime on TVA land. We listened to the people and what turned it around was public hearings that we had. Folks have forgotten the number of ways that this agency has been opened up in the last five or six years and not for show, but it has been opened up for tell.

The one issue on which we were unable to do what most people wanted was on the rate increases. But if we had, we would have gone broke. The plain truth of the matter is our expenses went up and we had to raise the rates to cover them, but also we heard the anger about the rate increases and that was the driving force that persuaded us to stop the overbuilding of the plants. It took awhile, but that lesson hammered home. I think that the last five or six years have demon-

strated in a very forceful way the power of public input and the fact that this Board is responsive if you have people of the Board that will listen.

Now the crucial thing are the Board members. If you have a Board member that's got the wrong point of view and stubborn about it then you can have all the advisory boards in the world and that is not crucial. I have no problem with advisory boards. We have been bringing people in by the bus loads for special meetings practically every month we have a group of people to come in to advise us. We take the Board around and I get on the citizen action line and my in box is open all the time. I read every letter that comes to me. I answer just about every phone call. Sometimes some of the calls from employees that are in a grievance situation it is not appropriate to talk to them and we refer that. But by and large, the Board is extremely responsive. I just take exception to the change that this agency is not accountable. We are accountable to the people and accountable to Congress.

If there is something that we are about to do that really angers people, the Congress stops us! For example, when we wanted to have these retention contracts to provide extra money for our key employees so that they wouldn't leave, that angered people. It is not a question whether it is right or wrong, but public opinion is very much against it. The Congress saw to it that we stopped it.

I would say if you look at the fifty-year history of TVA, this agency in most of the years and certainly in the last five years has

been very responsive to the public. To change it by enlarging the Board especially would simply bring to the Board people with less competence generally, I think, with less knowledge, less able to assert the public interest. If you want to turn this agency into a junior version of a legislature where each director feels that they represent one corner of the Valley then you have lost the basic purpose of TVA which is to look at the unity of these resources and including the human resources and look out for the river valley as a whole. That has been the strength of TVA--unified resource development--to get the most out of all the resources. If you convert this kind of to a pork barrel horse trading operation, I think that you will effectively destroy it.

I really challenge anyone to compare TVA today with the private utilities of many of whom are in rate shock--the public agencies of the Northwest--and suggest that we aren't functioning quite well. We have been through a fire storm. I think we have come through it successfully. That should be evidence that the present structure should be preserved.

I personally, of course, I am leaving the Board, I have no stake in it. I kid with Ronnie Flipppo whose got this suggestion. "Ronnie, you really pay me a higher compliment than anyone else. I don't think it is going to take eight people to take my place." (Laughter) One person can do it.

DR. BAILEY:

TVA's original goals included flood control, erosion control and economic devel-



opment and power. Shortly after that, its national role became basically that of supplying power to the World War II effort and to the federal facilities at Oak Ridge and Paducah, Kentucky, and I think at Tullahoma. You have got a lot people who are saying that TVA now has become little more than a regional power company. Do you see a national role for TVA in the future?

MR. FREEMAN: I don't think they are saying that anymore.

I think they were saying that back in '77 when I came on the Board. But our national reputation, if I might say so, has been immensely enhanced. This agency is leading the fight for acid rain controls and you should have heard the eloquent speech that the senator from Maine--Senator Mitchell--made about TVA at the Congressional hearing. We've had the chairman of the committee, Senator Stafford from Vermont, come down and visit us. We are praised by Senator Hatfield of Oregon, our committee chairman whose note saying, "I am a friend of TVA" I have hanging on my wall.

Our stand on the environment as the nation's largest utility showing that it is practical to clean up the air has won us great acclaim as doing what the Congress intended for us to do when it started us to set a good example. So that our environmental sensitivity and the fact that we can show that you can have reasonable priced electricity and a clean environment too is one of the national demonstrations.

The other thing in the energy field, we are a leader. We are demonstrating that a fluidized bed will work and can burn the dirtiest

coal very cleanly. It is such a powerful leadership role that private power companies--the Duke Power Company--is actually kicking in money to be a partner with TVA. I think that George Norris and Franklin Roosevelt would be hugging each other with joy if they were alive today. We have designed and are working with a private consortium to build coal methanol plants so that we can take the dirty coal and put it in the gas tank to displace imported oil. Down at Muscle Shoals, with the technology to take the hardwood that is rotting away in the forests which is useless and convert it into ethanol.

This agency is now on the cutting edge of technology to make us a more energy self-sufficient, the technology to clean up the air, and the policy positions that are helping the Congress to find the right answer on the problems such as acid rain, not to mention our role in the production of food through the development of better and better fertilizers.

Then in addition we are showing the country how to train people. TVA in the last couple of years--and I am very proud of this--has developed some small but very effective training programs. They take people that have been thrown out of work in the automobile industry and elsewhere in this Valley and train them to do things that are needed. We have been placing 70 to 80% of the people in these training programs. There's several thousand people that have been trained. They are small and they are demonstrations, but we are working with the educational system here in the Valley to bring this valley into the hi-tech computer age. Not that we are taking over the respon-

sibility but we are acting as a catalyst. These are demonstrations that the whole country can benefit from.

I would say that TVA today is a living laboratory of how to deal with the toughest problems on earth and that the lessons we are learning here of course are benefitting the Valley, but they are valuable for the whole country. Of course, our power system who used to serve only the Tennessee Valley service area--by law it is the service area that Congress prescribed--is of immense importance to the Valley, but I think we are setting the lessons in that power system that others are more and more looking to as to how to go by stressing conservation in renewable resources. That is a lesson that the utilities are beginning to emulate.

I could go on and on, but it seems to me that the question you asked is a question that is hard to answer positively six years ago, but it kind of demonstrates the principal accomplishments of this agency in the last five or six years.

DR. BAILEY: Do you think that your hazardous waste program might become a national model?

MR. FREEMAN: We hope so. I'm not ready to brag about that yet since it is still just in the incubator. I think we have thought our way through to the nubbin of it with the help of environmental leaders here in the Valley and we are going to stage an educational program with the help of the local people to try to learn together the facts about where the wastes are and what are the options. What are the technologies

that are available to dispose of hazardous wastes in a way that would be more satisfactory. Right now there is panic and concern and mere hysteria in some areas to the point where no one can propose doing anything because fear dominates it. Now fear is not misplaced in this area because hazardous wastes are fearful. There are possibilities and possibly legislation to in time outlaw dumping. Some of the better technology can destroy some of these wastes. We've got to do something better than shipping it to Alabama and dumping it. But I think that we just can't jump into some community and say "Hey folks, we want to tell you, we have sat up here in the Twin Towers and we have decided that you guys are the winners. You get to be the place where we are going to build this beautiful hazardous waste disposal system." That dog just ain't going to hunt.

So we are going to go around the Valley and see if we can learn enough about this subject together so that the people themselves can get comfortable about some solutions. That education process is going to take awhile, but it needn't take forever. I think that folks are not aware that there are some technologies now that will destroy almost all of some of these wastes that we probably ought to go to, but how do you get an industry to use those technologies as long as they can keep dumping the stuff.

The problem is complicated as far as the solution of the future. There may be no role for TVA in it, but we are not going to turn our backs on it as part of our leadership role. We are going to try to see if we can get some progress on it.

DR. BAILEY: I've got a couple of questions that kind of deal with utility costs. One, there is conflict between the Tennessee Municipal League and TVA over in lieu of taxes payments. The League, I understand, wants more money, but TVA has argued that any increase will simply be passed on to the customers in an indirect tax.

MR. FREEMAN: That's not an argument, that is fact. We are not a profit making outfit so that if we pay more money in lieu of taxes it has got to mean that we charge more rates.

DR. BAILEY: Is there any alternative?

MR. FREEMAN: I'm sympathetic to the plight of the cities. They need more revenue; they need it desperately, but quite frankly I also believe that in the principle that the person who spends revenue ought to raise it. That is kind of a fundamental rule of government to focus responsibility in. It's a bit much for the cities to want TVA to be their unfair tax collector.

Now, we pay an amount in lieu of taxes that no one can quarrel with, [that] represents at least as much as a private company would pay if it were here in the electric business. I think that is a fair test. The figures show that we pay a little more than that, but the argument is because the cities need more money and for obvious reasons they would prefer that TVA raise it in the electric bill and that they go to the people with tax increases. I understand their

point of view and I don't blame them for trying. I'm not angry about it, but I just think that that is not right and that there is no equity to their arguments especially since the TVA Act commands us to sell electricity at the lowest feasible price.

Now, I think the price should include all the cost of society. It should include a fair amount of money in lieu of taxes just as it has to include what it costs to clean up the air and to have healthy conditions for mine workers. So the question is not whether the cities need more money, I agree with that. The question is whether TVA is paying a fair amount of money in lieu of taxes. I don't know a better test than what the private companies pay in comparable situations throughout the Southwest.

The interesting thing is that many of these cities have municipally owned gas systems and water systems that pay next to nothing in lieu of taxes. We've been pointing that out to them. It seems to me rather than ask the electric rate payer to pay money in their electric bill that is way above their fair share that they ought to first get the people who buy water and gas to pay their fair share. But whatever it is, if they need more money I guess I kind of feel they ought to raise the taxes because we have had to raise electric rates to meet our bills. And it is painful and people get angry. I guess I feel that TVA has had all the anger for raising rates directed at it that it deserves. And we are in the fortunate position to finally be getting our costs under control by cutting out the overbuilding. And we haven't had an increase in two years and I am hopeful that the work

we are doing here will enable my colleagues to hold the line for awhile longer.

But whatever it is TVA should raise its rates only to meet its increased costs that are necessary. You should not be a tax collector for the cities. That is just not right and it is contrary to the TVA Act and it is contrary to all the principles of good government.

DR. BAILEY: One other side question to that: if costs continue to increase as the problem grows there will be more criticism of the utilities--utilities in general. Do you think that or do you sense a resurgence of opposition to public power concept?

MR. FREEMAN: TVA is going to look better compared with the private power companies every year for the indefinite future because we have got our overbuilding stopped. We are achieving economies in our operations by a very strenuous cost study program under the direction of Hugh Parris whose management strengths grow with each year and a person that I take great pride in having identified in the bureaucracy of TVA. Dick Freeman and I promoted the manager of power shortly after we got here and who is doing an excellent job in keeping the costs under control, and the organization frugal and efficient.

I'm hopeful that any slight increases that may be needed in the 1980's in electric rates are going to be at or below the level of inflation. While the private power companies are by and large are engaged still in a much higher rate increase. I think folks are

going to be mad at the gas people and mad at other folks. I think it is even possible that in the late 80's that there are going to be TVA directors that are popular. (Laughter) I don't think that the anger and the frustrations that we have had because we have had to raise rates are going to reappear in the order of magnitude. There may be a need for small rate increases in some of the years ahead, but it won't be anything like it has been before. It will be small compared to inflation in other things like gas.

DR. BAILEY: This brings up one pretty sticky problem.

A public utility like TVA, you mentioned Hugh Parris, how are you going to attract and retain top personnel when the public views high salaries not as a means of saving money in the long term through good management, but might tend to view it as a contributing factor in the increase of utility costs?

MR. FREEMAN: Well, Marv, I may be accused of being a perpetual optimist, but I think that the public is going to increasingly get a better feeling toward TVA and have a better understanding. With the benefit of hindsight people just weren't listening to us at the time we were raising rates about this problem of adequate employment compensation for top managers. The anger about the electric rates was such that people viewed this as more wasteful spending. I think in a year or two, if we have kept the rates reasonably level that it is possible to explain this problem ^{to} more and more leaders and more and more people to the point that adjustments can be made fast enough to keep people here.

Our employees love TVA--most of them--love their jobs and want to stay and if we can adjust their salaries adequately they will stay. We obviously are competing in the market place with folks that don't have the constraints that we have so we will lose good people if those constraints are not loosened up. I think that the Congress and the Valley delegation can be persuaded--not this year--but in the years ahead. There has been some relief in the last year in that the ceiling was adjusted upwards. Hopefully, we can continue to make additional adjustments.

But that remains a problem. All the problems are not solved. You put your finger on it. The perception of the public that adequate compensation for our top managers is wasteful is more a function of the anger of the rate increases and as folks get over that anger and they are getting over it that issue can be brought to the public in a more analytical and dispassionate way and I think over time the adjustments can take place. I think there is some understanding of our top managers and hopefully they will stay with us while we (turn tape).

The personal ridicule that they received in the press when these proposals were made in the past lead them to believe that they don't want the Board to press this issue at this time because they and their wives and their family had rather not hear about it. So until we get a better climate for that issue, we can't go forward with it. I think that better climate will take place in the years ahead.

DR. BAILEY: Well, opposition to something like that I would think could lead to such opposition that could result in the Board's being expanded or realigned or altered in some way shape or form.

MR. FREEMAN: The problem with this suggestion of expanding the Board, I don't sense there is a lot of support for right now. But it sits kind of like a time bomb. At any time there is extreme public anger against TVA on any issue, it just seems like a cure-all. But quite frankly if you think of a TVA Board of seven or eight people made up of political appointments of people who think in terms of a legislator--just looking at the short term opinion things--I think that such a Board would never have voted to stop the construction of the nuclear power plants. It is indeed such a board that is running the Washington Public Power Supply System such as dairy farmers and others--good people but just didn't know enough about what was going on and did not have the self confidence to vote against the views of the special interests who compete with the construction workers who wanted to keep their job, the contractors who wanted to make more money. They have put that system into bankruptcy. That's the danger that I see. You would no longer have TVA which has a proud history of backing up its technical experts.

You know the story of Douglas Dam where Senator McKellar began to pressure the Board but where the Board stood up behind its engineers and when President Kennedy told them to put a power plant in East



Kentucky and the Board said it was more cost effective in East Tennessee and that's where it went. TVA over its history has had a reputation of standing behind the cost effective best answer and not caving in to short term political pressure. Once you depart from that you become a pork barrel organization and we will not be doing the things that TVA can do for the Valley or the nation over the long run.

DR. BAILEY: Are there any other conflicts between TVA in the cities that are flaring up right now?

MR. FREEMAN: I don't know of any. I think we enjoy good relationships with the cities and the counties and the local people. I think we are working more closely with the communities in trying to bring jobs into the Valley than we ever have. TVA is a partner with the chambers of commerce in almost every community trying to bring job producing enterprises into the Valley and our existing industries program tries to help the industries that are already here expand. I think that is our primary role with the communities. It's one, if you check around, most communities prize and value.

DR. BAILEY: Am I correct in saying that TVA's goal by 1990 is to save 7% of the electricity levels of 1983?

MR. FREEMAN: Through our conservation effort?

DR. BAILEY: Yes.

MR. FREEMAN: I would think that that is in the ball

park. We have an ambitious ongoing conservation program because our goal basically is to put off indefinitely the need to build more large expensive power plants. That's the way to keep the rates under control. We finally figured it out. The way to keep the rates down is not to build power plants that cost so much money that they cause rate increases. So that if we can push conservation now, in years ahead we can grow economically, we can have more jobs, we can have more electricity to sell to new enterprises and new homes and get it from the electricity that is going out through windows and through roofs of existing buildings used inefficiently. So the energy we save is the cheapest source of energy on which to grow. If we have to build more power plants, we are going to have to have big rate increases and that scares people off, angers our customers and depresses the economy.

DR. BAILEY: This raises the problem then in the next, say 20 to 50 years, where will the energy come from for economic growth if there is any economic growth?

MR. FREEMAN: Oh, there will be economic growth and the energy will come from using or replacing a worn-out motor with one that can do the same work for half the electricity. You've got another half to run a new motor. It'll come from doing the same thing in homes but it will also come from the sun and it will come from the wood resource that is a form of solar energy.

We've got the equivalent of ten million tons of coal a year rot-

ting away in the forest. So we see biomass--mainly wood and photovoltaic cells by the turn of the century as part of our energy future. We have four big nuclear power plants that we are going to finish that we haven't finished yet--four units, two at Watts Bar and two at Bellefonte that add a large block of power to our system.

In the 1990's the TVA power system will just be in terrific shape. It will have nine large nuclear reactors to run around the clock to supply the base load. It will have plenty of coal-fired plants in good shape to burn coal cleanly to take the swing loads with.

DR. BAILEY: How many coal. . . .?

MR. FREEMAN: Sixty-two units and twelve plants and then it will have its hydropower to use during peak periods. In my view we won't need to build any more central station power plants. I don't think our net loads are going to grow that much. I think much of the growth will be offset by what we can save. By the next century I think there will be photovoltaic cells that TVA is now looking at integrated with our central stations. There will be a lot of cogeneration built--small plants--and then we have got the fluidized bed if we need more capacity we can add 200 megawatt units. I don't think many of them will need to be built until maybe the next century to replace some of our existing plants.

I think our power system is going to do fine with using a fair amount of coal, the nuclear plants that we are finishing we will not need to start any new nuclear power plants for a long long time un-

til there is better technology developed. The same for coal, that we can grow on the basis of wood resource converted to electricity, on the basis of solar power, and the basis of the energy we save, and on the basis of co-generation plants and squeezing a little bit more out of our existing units.

DR. BAILEY: Do you think you can keep all this environmentally sound?

MR. FREEMAN: I think the environment can be improved because we have built the scrubbers. I think as part of the acid rain program we are going to have to put scrubbers in some of the additional plants that we haven't or use lower sulphur coal. In other words, I think the Cumberland plant and Kingston and some of the others that still are in compliance with the law, but we can clean them up some more.

I think we will have further reductions in the emissions of SO_2 and I think that the wood resource will be burned in a way that will be fairly clean.

DR. BAILEY: Well, given that the evidence now points to acid rain, as West Germany and our own Northeast, is destroying forests, environmentally sound energy is going to be a pretty horrendous issue.

MR. FREEMAN: It certainly will and I think TVA will be a leader in showing the answers. The answers have got to be in burning what coal we burn much more cleanly. We have cut our sulphur oxide emissions in half once. I think we can do

it again. I think by the 1990's that sulphur oxide emissions will be half of what they were in 1980--down to half a million tons. The nuclear plants operating successfully will make a contribution to clean air by supplying our base load energy without air pollution in terms of sulphur oxide and nitrogen. So that will be a plus. I think the growth plus in the energy we save which is the cleanest form of energy that you can have and in solar and in biomass.

DR. BAILEY: Well, is the capital available for extensive investments in new technology like the fluidized bed for coal burning plants?

MR. FREEMAN: The TVA power system will be in a beautiful shape starting in two or three years from now to throw off enough depreciation money to take care of all of its capital expansion. We are probably going to level out our debt at 16 or 17 billion dollars--we probably will not need to borrow much money after about '86 because we now have such a large number of plants built that are thrown off the depreciation. That depreciation money will take care of all of our capital needs for our conservation program and I don't think we are going to need to build any big centralization power plants but to finish up Watts Bar and Bellefonte because we are finishing them up in a more cost effective way.

As I say, this has not all happened through happenstance or automatically, we have worked hard the last five or six years to bring this power system under control and get it in line with the realities of the 80s. I feel that we have done one heck of a job. Not a

perfect job and someone else can come along and find some ways to improve it.

We are still fine tuning the organization to be further strengthening of the nuclear organization. We have new management there that is going to do that job. We are going to really turn the corner on nuclear safety. We are not satisfied with our performance at Brown's Ferry, but we are going to do better. We are taking some tough management action in the next few weeks to shake up the organization and let them know that safety first thing is going to be implemented.

We don't have every problem solved, but we are on the right track now. We are now doing the big picture of fine tuning whereas five or six years ago, we were in a heap of trouble.

DR. BAILEY: Do you think the nuclear power industry is a dead industry?

MR. FREEMAN: No. You can't say that an outfit or industry that has fifty or sixty operating plants is dead. I'd say it is stagnant.

DR. BAILEY: No new orders.

MR. FREEMAN: It is not growing, but you know we all stop growing when we get out of the teenage years and we still live a long time. I think the people who are calling nuclear power dead are a bit premature. I will say this: The manufacturers and some of them with a religious belief in nuclear power are perfectly capable of killing it. If we don't develop better nuc-

lear products it will die . But I don't think it is dead and there are some exciting ideas for meltdown proof reactors-concepts reactors--that inherently will be much safer than what we have that need to be developed. I don't think that anybody could have an appreciation of the problems of burning fossil fuels that I have without feeling that society could use an inherently safer nuclear option as part of the package not as a cure all.

I continue to be concerned about the build up of CO-2 in the air and I am very concerned about our national energy policy that spills American blood in the Middle East to protect an oil lifeline that we ought to be off of and that the world needs to be off of. I guess I am the last militant neutral on nuclear power. I've always been a critic of the industry because they have sluffed over the real safety problems, but I have never felt that we ought to throw the thing out altogether and I don't think it is dead. The plus reactor is a concept where you build a reactor in a pool of borated water. The thing can't melt down according to the scientists. I don't know! Then you have the gas-cooled reactors that can be built in modules in small enough sizes so that scientists tell me that they are incapable of melting down.

I think we have learned that current technology is too demanding of human beings to be something that we want to go with indefinitely. I consider these reactors the T-model Ford of the nuclear era. Now the T-model wasn't that bad a car, but I think that the automobile industry wouldn't have grown if they had just frozen the technology



at the T-model. It's up to GE and Westinghouse and the leaders in the utility industry. I think that they are on the wrong road right now trying to sell the existing product with a PR campaign and it won't sell. The option is more important than they and I am hopeful that our country will invest the resources in these better nuclear products so that we'll have that option.

I think over time solar energy will do it, but we need more of a bridge to the future than just coal.

DR. BAILEY: Well what about the by-products of nuclear wastes?

MR. FREEMAN: I think the nuclear waste issue is somewhat exaggerated. The nuclear safety issue has been underestimated. We keep the nuclear wastes in a cask--a dry cask--right at the power plant site indefinitely or you could build above ground a central storage where you concentrate on it. You can keep spent fuel that way indefinitely. That doesn't present a substantial safety problem. It is only when you reprocess them--spent fuel--and develop plutonium that you get into this proliferation and terrorism and bomb problem. I'm against the reprocessing, but the nuclear wastes can be handled as spent fuel above ground. I don't think we ought to be spending these billions of dollars poking holes in the ground looking for some repository underground. I think that is not as morally acceptable as keeping it above ground and watching it. It is not that it can blow up and

it does cool off. Perhaps fifty or sixty years from now we'll know enough about the geology to do something more. But it can be kept above ground indefinitely. It's obviously a long-term problem, but someone said that one of the prices of nuclear power is eternal vigilance.

We got the wastes from the military program. If we could eliminate nuclear power completely from the earth, I'd be for that, but as long as we have the weapons and the waste from the weapons program I think the civilian nuclear power side is an option to help us with the energy problem provided we get a better product. But I don't think that we could go into the future with reactor concepts that require 50,000 valves to be turned which is what we have got at Brown's Ferry. It just demands too much of human beings.

We can handle existing reactors at relatively small risk, but it is a job that is so tough. That technology isn't very economical for the future. It just cost too much.

DR. BAILEY: What is your reaction to the defunding of the Clinch River Breeder Reactor?

MR. FREEMAN: I don't have any reaction. I distinguish myself by being on both sides of the issue most of the time. (Laughter) I just stopped commenting on Clinch River some time ago. The decision has been made and I certainly don't have any more to say. I do think, as I said, that the nuclear option is not worth pursuing if you don't



have in mind that ultimately over time you want to get to a breeder because then you have a large source of energy. But the timing of the breeder program is something that I hadn't studied for a number of years and I just don't have any comment on what the Congress said. I think we need better nuclear converters. I think we need a much larger energy research and development program on solar energy. We are neglecting what it takes now in on coal conversion and also on nuclear. I think this country is still overspending and underinvesting in the energy field and every other field.

DR. BAILEY: I have a question: A couple directors of TVA have said privately that the Columbia Dam is not a sound project and I understand the Chairman Dean has stated publicly that it will be completed because Congress and especially Senator Sasser want it done.

MR. FREEMAN: I don't think that is an accurate statement. You can get the transcript of the hearing we had on the House side. I think in our own words all three of us stated publicly that given the budget situation that we have where OMB gives us a ceiling number now and in the years ahead that the Columbia Dam is lower priority than the items are covered in our budget, therefore we don't see how the TVA Board could ask for the funding of Columbia Dam in any event if we are limited to the amounts of money anywhere near to what the OMB is limiting to us. So that it is not a project that we consider of high enough priority to warrant our asking the Budget Bureau or Congress for funds.



I think in our own way we said that. There is as you have written in your column the last benefit cost ratio studies that suggest on a remaining cost basis that the benefits are lower than what it costs to finish it. Those are just facts that I think we all three stated in public that those are the facts. That's really not news but I guess it was the first time that we were questioned in the appropriation hearing and responded in that way. The Chairman also did say what we would all say that if the Congress appropriated the money and directed us to spend it we would do it. We are law abiding citizens. We were directed to complete Tellico Dam and we completed it. That is in a sense almost a truism. You are either going to do what the law says or resign.

DR. BAILEY: TVA is getting back to fighting soil erosion particularly in West Tennessee. I think you have done quite a few demonstrations in West Tennessee particularly in no-till demonstrations etc. What is your evaluation of TVA's effort in West Tennessee?

MR. FREEMAN: That is one of the things that I am the proudest of. Ed Jones and I were talking when I first came down here. President Carter came down to visit about May 19th in '78 right after Red's term expired. We were in a car together driving in Knoxville to Oak Ridge in the party with the President. I had been over West Tennessee and had observed the erosion and I just commented, "It looks like TVA kind of quit when it got to Nashville." And that turns out to have been the fact that we



didn't consider West Tennessee part of the service area in those days.

I remember those farmers telling me that soil melts like sugar and runs like hell. Ed and I said, "We ought to do something about it." We agreed that we should and as a result of that conversation an effort was sparked and I couldn't have believed that it would catch on as fast as it has. We have got lots and lots of farmers spending their own money and going to no-till and cutting back on the loss of soil. The movement has now spread so that there is comparable programs started in northern Alabama and northern Mississippi and Western Kentucky. I am just really pleased with the progress and I think it is what TVA is really all about and it may be as good an example as any.

I don't know if you saw the plaque that I got--Soil Conservation People--TVA and the Soil Conservation Service in the olden days used to be kind of a feud. I guess I take great pride that soil conservation people and the environmental organizations have given me awards. I don't take them that personally, but I know they represent the work of the Agency and I do take pride in that.

I might also mention and it is very difficult for me--impossible for me to recommend money for the Columbia Dam when we are hurting so badly for investments in soil conservation and other investments are so urgently needed. The question of the lower priority of the Columbia Dam is just if one thinks about this hazardous waste problem, and soil conservation and the number of people without jobs that need to be retrained. That money has to go for those things first and foremost.



I think that kind of puts Columbia Dam in perspective when you think of the unfilled, clear and present needs where the benefits are several times the cost.

These training programs we can show the benefits for seven and eight dollars for every dollar we invest. Any person with any sense of fiscal integrity knows that you just have to put your money where it will make the most for the public. Not to mention the fact that we have adopted a policy in recent years to protect the prime farmland and there are thousands of acres of really good farmland that the Columbia Dam would flood out. I think it is important that the benefits would exceed those loss values before going ahead.

DR. BAILEY: Getting back to your West Tennessee soil, do you think in Tennessee or in the Valley that strictly volunteer efforts by farmers are going to stop the soil erosion or do you think ultimately we are going to have to come to erosion control laws or what?

MR. FREEMAN: I don't think that it is a question of doing it ultimately. Congressman Jones has got legislation that is going through the Congress now that we support that will at least stop the subsidation of soil erosion. All the government programs that provide financial aid one way or another to the farmer need to be conditioned on their using good farming practices that will stop the erosion. So I think that kind of legislation needs to be enacted and then perhaps it is going to take more. I think the answer to your question is that voluntary efforts alone

won't do it, but I'm encouraged that we have gotten a sizeable voluntary response and it shows if you address a problem that you can make progress. The government is not impotent. People are not all that short-sighted.

Dave Lilienthal said, "Every generation just needs to learn these lessons all over again."

DR. BAILEY: A couple of quick questions here: Congress passed laws which require automobiles to come up to a certain efficiency and it has resulted in a considerable savings in oil. Do you think that the Department of Energy should establish appliance efficiency standards?

MR. FREEMAN: Of course, the law requires that they should. I was up there when we passed that law. They are thumbing their nose at the law and people have taken them out to court. We have written a letter pointing out that they are passing up a large saving to their customers and we are trying to help the people that want to see those standards implemented. There is nothing that the march of technology in efficiency is just very rapid. We had a group of experts in yesterday that met with Amery and Hunter Lovins and Bob Williams and Tom Stelson and some of the leaders in energy conservation and they were giving us facts about these new products. There are refrigerators now on the market that use a little more than half the energy that other brands do. There are motors and other things so that appliance efficiency standards can save on electricity and avoid the necessity to build

more power plants that will cause rate increases and basically tax the nation.

What we are trying to do is to get more productivity and more efficiency and reduce rate increases. The efficiency standards would help. The Energy Department is just wrong. It's part of an attitude of the Reagan administration to basically declare victory over the energy problem--say it doesn't exist and they seem to be willing to risk American lives to protect our oil lifeline but not to require American industry to become more efficient so we can get off that oil.

DR. BAILEY: Two more questions: What from your perspective do you consider the greatest threat to the environment today?

MR. FREEMAN: Well, obviously the threat of nuclear war is the greatest threat to the environment at the time. That may not be the answer that you had in mind, but I have to say that. If you go beyond that to problems that are more usually associated with the environment I guess my own personal view is that the hazardous wastes problem is the most clear and present danger but I think that air quality runs a close second and water quality in certain areas may be worse. It runs a close third. I think ground water is a thing that concerns me that we have neglected because we don't see it. I am concerned--very deeply concerned--of the spread of cancer and I feel it must be a result of hazardous wastes and the chemicals that are in our society. I still think that we are

very early in the learning of these environmental problems. The feeling that we have somehow cleaned up the environment is very superficial. We have cleaned up some of the very more obvious environmental problems. After the acid rain for example, really it is just a word that covers the whole witches' brew of pollutants that are still up there that we haven't cleaned up so that moving to a clean sustainable society is a job that is ahead of us.

I think people know that. We have neglected the land. I have got to mention the soil and land use as among the top ones also so that if you think of hazardous waste, acid rain, soil conservation and water quality and including ground water--I think you have the major environmental concerns. I say acid rain and I am also talking about the long term CO-2 problem. The biggest threat to the environment of course is nuclear war. That could be caused by terrorism clandestinely steals enough plutonium from the civilian power system to build bombs. That's. . President Carter was right on the poliferation issue. Amy was right when she told him that was the worst problem. People laughed about it and joked about it. But the greatest threat is the growth of terrorism in this world.

DR. BAILEY: One other question that should be easy for you. What are your plans now, what are you going to do next?

MR. FREEMAN: I am going to look for a job. (Laughter)

I am serious. I haven't found anything yet. I haven't had much of a chance to look. It's very difficult

to find the time to look for a job while you are on the TVA Board. Contrary to what people think we put in a pretty full day around here. It's a little awkward to talk to people. I'm a lawyer and I assume that I will end up practicing law when I leave here. I'm planning to take it easy for awhile over the summer and I hope I won't have to go back to work until late summer or fall.

DR. BAILEY: You can't just retire?

MR. FREEMAN: I'm too young and I don't have enough money. I'll see and I still have a child in school and other responsibilities, but I don't think I'll ever retire.

DR. BAILEY: There wouldn't be much of a chance for
 you in the Reagan administration, would
there? (Laughter)

MR. FREEMAN: I don't think I need to answer that!





